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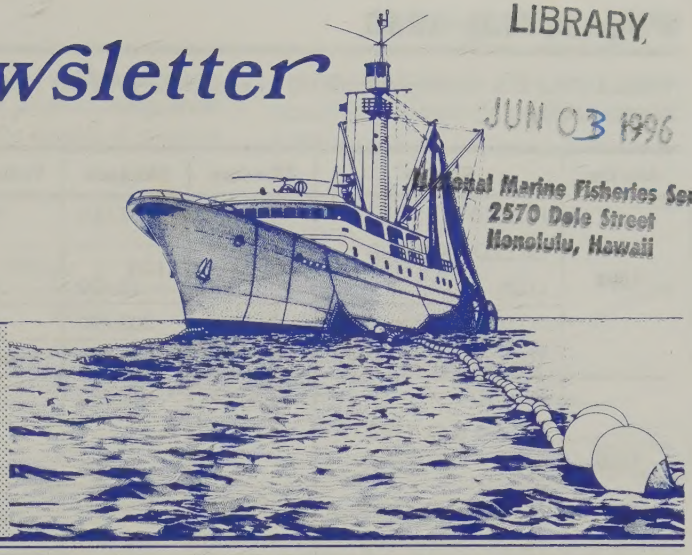
Tuna Newsletter



National Marine Fisheries Service
- **Southwest Region**
- **Southwest Fisheries Science Center**

May 1996 **Issue 121**

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U.S. TUNA STATISTICS

Editor's note: The following articles were prepared by NMFS personnel from data and information gathered from sources in the U.S. tuna industry and government. The U.S. tuna canning industry is composed of four companies with six canneries based in the U.S., that is, two canneries in each of the three canning locations of American Samoa, California and Puerto Rico. Under the confidentiality rules that guide the dissemination of information from business sources by the NMFS, data from at least three companies must be combined for publication. Therefore, cannery receipts for all U.S. canning locations are combined for presentation in the Tuna Newsletter.

U.S. CANNED TUNA INDUSTRY HIGHLIGHTS, FOURTH QUARTER 1995

Total receipts of tuna by U.S. canners during the fourth quarter of 1995 (October-December) increased by 2% to the equivalent of 117,200 short tons (st) of whole fish (round weight), compared to the fourth quarter of 1994 (Table 1). The principal species received was skipjack tuna with 55% of the total, followed by albacore and yellowfin tuna with 25% and 20% of the total, respectively. Yellowfin and skipjack tuna receipts were up by 13% and 11%, respectively, for the quarter, while albacore receipts were down by 18%.

Receipts for all four quarters of 1995 totaled 469,100 st, up 6% from the previous year (Table 2). Skipjack tuna receipts were up by 27%, while albacore and yellowfin tuna receipts were down by 7% and 25%, respectively.

Although the vast majority of tuna received by U.S. canners is

Table 1. Total U.S. cannery receipts (st) by species for the fourth quarters of 1994 and 1995. Totals may not add due to rounding.

Oct-Dec	Type	Albacore	Skipjack	Yellowfin[1]	TOTAL
1994	ROUND	36,000	50,300	17,900	104,100
	GILLED & GUTTED	0	0	300	300
	LOIN	0	3,700	1,000	4,600
	TOTAL (as received)	36,000	53,900	19,100	109,000
	TOTAL (round weight)[2]	36,000	58,500	20,300	114,800
1995	ROUND	29,600	44,700	19,700	93,900
	GILLED & GUTTED	0	*	200	200
	LOIN	0	8,900	1,300	10,200
	TOTAL (as received)	29,600	53,600	21,200	104,400
	TOTAL (round weight)[2]	29,600	64,700	22,900	117,200

*Less than 100 st reported for this category.

[1]May include a small amount of bigeye tuna.

[2]Converted to round weight by using factors of 1.11 for gilled-and-gutted and 2.25 for loins.

Table 2. Total U.S. cannery receipts (st) by species for 1994 and 1995. Totals may not add due to rounding.

Jan-Dec	Source	Albacore	Skipjack	Yellowfin[1]	TOTAL
1994	ROUND	113,500	187,900	82,100	383,500
	GILLED & GUTTED	*	*	1,000	1,000
	LOIN	100	15,400	10,100	25,600
	TOTAL (as received)	113,600	203,400	93,200	410,200
	TOTAL (round weight)[2]	113,700	222,700	105,900	442,300
1995	ROUND	106,100	210,500	63,200	379,800
	GILLED & GUTTED	*	*	1,000	1,000
	LOIN	*	32,400	6,800	39,200
	TOTAL (as received)	106,200	242,900	71,000	420,000
	TOTAL (round weight)[2]	106,200	283,400	79,600	469,100

*Less than 100 st reported for this category.

[1]May include a small amount of bigeye tuna.

[2]Converted to round weight by using factors of 1.11 for gilled-and-gutted and 2.25 for loins.

Table 3. U.S. cannery receipts (st) of domestic and imported tuna by species for the fourth quarters of 1994, 1995 and the recent (1990-94) fourth quarter averages. Totals may not add due to rounding.

Oct-Dec	Source	Albacore	Skipjack	Yellowfin[1]	TOTAL
TOTAL CANNERY RECEIPTS (ALL LOCATIONS)					
1994	DOMESTIC	6,700	38,000	10,700	55,400
	IMPORTED	29,300	16,000	8,400	53,600
	TOTAL	36,000	53,900	19,100	109,000
1995	DOMESTIC	4,700	37,200	15,400	57,200
	IMPORTED	24,900	16,400	5,800	47,200
	TOTAL	29,600	53,600	21,200	104,400
Average 1990-94	DOMESTIC	2,400	36,900	11,000	50,300
	IMPORTED	23,700	22,100	9,100	55,000
	TOTAL	26,200	59,000	20,100	105,300

[1]May include a small amount of bigeye tuna.

Table 4. U.S. cannery receipts (st) of domestic and imported tuna by species for 1994, 1995 and the recent (1990-94) averages. Totals may not add due to rounding.

Jan-Dec	Source	Albacore	Skipjack	Yellowfin[1]	TOTAL
TOTAL CANNERY RECEIPTS (ALL LOCATIONS)					
1994	DOMESTIC	11,600	138,800	50,400	200,900
	IMPORTED	102,000	64,600	42,800	209,300
	TOTAL	113,600	203,400	93,200	410,200
1995	DOMESTIC	11,100	148,100	44,300	203,500
	IMPORTED	95,000	94,800	26,600	216,500
	TOTAL	106,200	242,900	71,000	420,000
1990-94 Average	DOMESTIC	7,900	136,500	55,900	200,200
	IMPORTED	90,100	84,100	43,700	217,900
	TOTAL	98,000	220,500	99,600	418,100

[1]May include a small amount of bigeye tuna.

whole fish, some quantity is receivedas loins or gilled-and-gutted. Receipts of tuna loins for the fourth quarter of 1995 were up by 122%, while receipts of loins for all four quarters were up by 53%. (Loins and gilled-and-gutted receipts are converted to round weight receipts by factors of 2.25 and 1.11, respectively. For this article, unconverted receipts are used unless otherwise stated.)

Domestic deliveries to U.S. canners for the fourth quarter of 1995 increased by 3%, while imported deliveries decreased by 12% (Table 3). Skipjack tuna was easily the largest component of all domestic deliveries at 37,200 st. Domestic deliveries out paced imports by 10,000 st.

For all four quarters of 1995, domestic deliveries increased by 1% from the previous year, while imported deliveries increased by 3% (Table 4). Imports accounted for 52% of the tuna delivered to U.S. canners.

Albacore was the leading import for the fourth quarter of 1995 at 24,900 st, followed by skipjack and yellowfin tuna at 16,400 st and 5,800 st, respectively (Table 5). The leading supplier was Taiwan, with 53% of the import market, followed by Ecuador and Japan, each with 7% of the market.

The western Pacific Ocean was the source of 61% of the tuna received by U.S. canners during the fourth quarter of 1995 (Table 6). The next greatest source was the eastern Pacific Ocean which accounted for 21% of the tuna received by U.S. canners.

U.S. imports of canned tuna packed in water totaled 10,900 st for the fourth quarter of 1995, down 39% from 1994. For the entire year, imports of canned tuna totaled 99,500 st, down 17% from the previous year (Table 7).

Table 5. U.S. cannery imports (st) of tuna by species and source (flag of catcher vessel) for the fourth quarter of 1995. Totals for the fourth quarter of 1994 are given for comparison. Note that the flag of the catcher vessel does not necessarily reflect the country of export or point of shipment. Totals may not add due to rounding.

VESSEL FLAG	1995				1994
	Albacore	Skipjack	Yellowfin[1]	TOTAL	TOTAL
BELIZE	0	700	200	900	*
ECUADOR	0	2,200	1,000	3,200	1,100
FRANCE	200	0	0	200	10,300
GHANA	0	1,300	700	2,000	700
HONDURAS	200	0	0	200	100
JAPAN	3,500	*	0	3,500	6,400
MEXICO	0	1,600	0	1,600	100
MICRONESIA	0	200	100	300	2,500
NEW ZEALAND	0	100	100	200	100
PAPUA NEW GUINEA	0	200	0	200	0
PORTUGAL	2,300	0	0	2,300	200
SIERRA LEONE	0	200	100	300	0
SOLOMONS	0	200	100	300	900
SOUTH AFRICA	400	0	0	400	500
SOUTH KOREA	700	400	1,400	2,500	3,100
TAIWAN	17,000	6,400	1,600	25,000	23,800
TONGA	200	0	0	200	200
USA	0	1,700	300	1,900	100
VANUATU	0	1,200	400	1,600	100
OTHER	500	100	*	600	3,400
TOTAL	24,900	16,400	5,800	47,200	53,600

*Less than 100 st reported for this category.
[1]May include a small amount of bigeye tuna.

U.S. TUNA FISHERIES UPDATE

EASTERN PACIFIC TROPICAL TUNA FISHERY

During the period January through March 1996, eight U.S. tuna purse seiners participated in the eastern tropical Pacific tuna fishery and caught an estimated 2,800 metric tons (mt) of yellowfin and bigeye tuna and 2,600 mt of skipjack tuna. The combined yellowfin and bigeye tuna catch was down 33% from the 1995 catch for the same period and the skipjack tuna catch was down 13%.

During this same period, the surface fleets of all nations fishing in the eastern Pacific Ocean caught an estimated 76,800 mt of yellowfin and bigeye tuna and 21,700 mt of skipjack tuna. The leading nation was Mexico with 43% of the total catch, followed by Venezuela and Ecuador with 18% and 10% of the catch, respectively. The U.S. fleet accounted for 5% of the tuna catch.

WESTERN PACIFIC TROPICAL TUNA FISHERY

Preliminary total landings for the 1995 U.S. tuna purse seine fishery in the central-western Pacific indicate 141,300 mt of skipjack tuna, down 4% from 1994, and 31,500 mt of combined yellowfin and bigeye tunas, down 49% (Figure 1). Forty-four vessels participated in the 1995 fishery and made 177 trips, compared to 49 vessels and 211 trips in 1994.

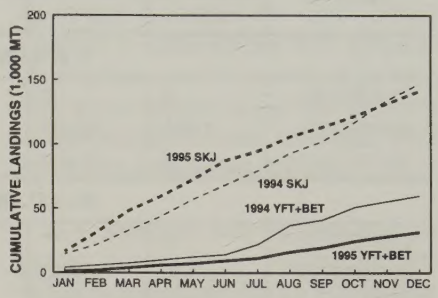

Figure 1. Cumulative tuna landings, by month, for the U.S. western tropical Pacific purse seine fishery, 1994 and 1995.

Based on preliminary data for the first two months of 1996, 23 vessels fished and landed approximately 13,500 mt of skipjack tuna and 7,100 mt of combined yellowfin and bigeye tunas. *(Report provided by Doug Prescott, NMFS Southwest Fisheries Science Center, La Jolla, CA)*

NORTHERN PACIFIC ALBACORE FISHERY

The 1995 U.S. North Pacific albacore troll season began in April 1995 in areas north of Midway Island. Most of the fleet then moved eastward by July. Fishing in August was concentrated in the area from 140°W to 158°W between 41°N and 48°N, where the vessels located a large aggregation of fish. The most productive fishing areas in September were off Vancouver Island, Canada, and off Washington and Oregon. By the end of September, fishing was sporadic as weather conditions deteriorated and fish scattered. Fishing success continued to decline in October due to bad weather, and albacore were available within 100 nm of the coasts of Washington and Oregon.

The preliminary estimate of total landings for the 1995 North Pacific season is 9,123 mt compared to 10,535 mt landed in 1994. The average catch per unit effort (CPUE, expressed in numbers of fish caught

Table 6. Receipts (st) of tuna by U.S. canneries by species and area of capture for the fourth quarters of 1994 and 1995. Totals may not add due to rounding.

SOURCE	Albacore		Skipjack		Yellowfin[1]	
	1994	1995	1994	1995	1994	1995
E. ATLANTIC OCEAN						
DOMESTIC	0	0	0	0	0	0
IMPORTED	7,200	10,000	400	1,400	*	800
TOTAL	7,200	10,000	400	1,400	0	800
W. ATLANTIC OCEAN						
DOMESTIC	0	*	200	0	0	0
IMPORTED	3,500	4,000	600	*	100	100
TOTAL	3,500	4,000	800	0	100	100
E. PACIFIC OCEAN						
DOMESTIC	6,600	4,300	1,800	5,200	1,200	2,300
IMPORTED	300	200	1,000	7,800	700	1,800
TOTAL	6,900	4,500	2,800	12,900	1,800	4,100
W. PACIFIC OCEAN						
DOMESTIC	100	300	35,900	32,000	9,600	13,100
IMPORTED	13,500	7,800	7,400	7,200	4,300	3,100
TOTAL	13,600	8,200	43,300	39,200	13,800	16,200
INDIAN OCEAN						
DOMESTIC	0	0	0	0	0	0
IMPORTED	4,800	2,800	6,700	0	3,400	0
TOTAL	4,800	2,800	6,700	0	3,400	0

*Less than 100 st reported for this category.

[1]May include a small amount of bigeye tuna.

Table 7. Cumulative monthly U.S. imports (st)* of canned tuna packed in water for 1994, 1995 and the 1990-94 average. (Source: U.S. Customs Service)

MONTH	1990-94 Average	1994	1995
JANUARY	39,900	36,700	30,500
FEBRUARY	46,600	46,300	35,200
MARCH	52,600	57,600	41,600
APRIL	63,500	67,900	47,800
MAY	70,700	72,800	54,300
JUNE	79,000	78,300	61,900
JULY	88,900	85,600	69,600
AUGUST	100,400	92,200	81,600
SEPTEMBER	111,100	102,100	88,600
OCTOBER	122,100	109,200	94,400
NOVEMBER	129,500	115,000	97,400
DECEMBER	136,100	119,900	99,500

*Reported in thousands of pounds in February 1996 issue.

per day of fishing) was 46 fish/day in 1995 compared to 60 fish/day in 1994.

Length-frequency samples were collected at seven landing ports used by the U.S. troll fleet, two in Washington, two in Oregon and three in California. In addition, two observer trips were completed during the 1995 season to collect catch/effort, length-frequency, and other fishing information. The average fork length of albacore sampled from landings was 69 cm (15 lbs).

Recreational catches of albacore in 1995 totaled 188 mt in comparison to 278 mt landed in 1994. Significant, although limited catches were reported near the coast of central and southern California.

Four vessels tagged and released a total of 200 albacore during the season in a cooperative tagging program between the SWFSC and American Fishermen's Research Foundation (Report provided by John Childers, NMFS Southwest Fisheries Science Center, La Jolla, CA)

SOUTHERN PACIFIC ALBACORE FISHERY

(Editor's note: A more expansive discussion of this fishery is provided in an article by John Childers in the Reports section of this newsletter.)

Approximately 55 troll vessels participated in the 1995-96 South Pacific albacore fishery which began in December 1995. The fleet began leaving the fishing grounds in mid-March and total landings are expected to be approximately 1,800 mt. Fishing was not as productive as in 1994-95 when 21 vessels landed 3,368 mt. Fishermen reported that the water appeared to be "off color" during much of the 1994-95 season. No length-frequency or logbook data are available yet from the 1995-96 season, but average CPUE values in past seasons have varied from 43 fish/day to 178 fish/day. One tagged albacore was recovered during the 1994-95 South Pacific season. The tag was out for 4 years and was recovered 278 miles from the release point. (Report provided by John Childers, NMFS Southwest Fisheries Science Center, La Jolla, CA)

HAWAII LONGLINE TUNA FISHERY

In 1995, 110 U.S. longline vessels participated in the Hawaii commer-

cial tuna fishery and landed a total of 3,900 mt of tuna with an ex-vessel value of $26.3 million. The principal species landed was bigeye tuna at 2,100 mt valued at $17.2 million, followed by yellowfin tuna (1,000 mt and $6.4 million) and albacore (700 mt and $2.0 million). In 1994, 125 longliners landed a total of 2,900 mt of tuna with an ex-vessel value of $20.4 million.

WESTERN ATLANTIC BLUEFIN TUNA FISHERY

Except for the North Carolina area, there is not much activity in the U.S. western Atlantic bluefin tuna fishery during the first three months of the year. A summary of large medium and giant size class Atlantic bluefin tuna landings is given in Table 8. The *Angling (Trophy) Category* (a recreational category which authorizes anglers to land one large medium or giant size class Atlantic bluefin tuna per year per vessel) fishing season began January 1 and ended February 28, 1996. Recreational fishermen licensed in the Angling Category harvested 29 large medium and giant size class Atlantic bluefin tuna. The average landed weight of these fish is 312 lbs. Total landings for this subcategory came to 4.1 metric tons. All 29 fish were landed in the Hatteras, North Carolina area.

The *Incidental Catch Category* is comprised of commercial longline vessels that are authorized to land large medium and giant sized class Atlantic bluefin tuna as a bycatch. Thus far this season, longline vessels have landed 4 Atlantic bluefin tuna (0.92 mt) in the northern sector (Cape Hatteras & points north). The average landed weight of these fish is 507 lbs. Longline vessels have landed 19 fish (3.34 mt) in the southern sector with an average landed weight of 388 lbs.

REPORTS

Editor's note: Original reports are published as a service to subscribers and may not represent the views of the NMFS. Readers should contact the authors of reports for details, if needed.

REVIEW OF THE U.S. SOUTH PACIFIC ALBACORE TROLL FISHERIES

John Childers, Southwest Fisheries Science Center, National Marine Fisheries Service, NOAA, La Jolla, CA 92038

The U.S. troll fishery for albacore in the South Pacific began in 1986 when two U.S. troll vessels conducted exploratory fishing operations that indicated the stock could support a commercial troll fishery. During the past 10 years this fishery has experienced large fluctuations in participation, total landings, and catch per unit effort (CPUE).

U.S. albacore troll vessels participating in the South Pacific fishery range in size from 55 to 100 feet in length and typically leave the U.S. West Coast or Hawaii in November or December to reach the fishing grounds in the southern hemisphere, south of French Polynesia and east of New Zealand (Figure 2). The fishery normally begins in December and extends into March of the following year. After the season has ended, U.S. troll vessels unload their catches in American Samoa and travel to the U.S. West Coast or Hawaii to participate in the North Pacific albacore fishery which normally occurs between April and November.

Participation in the South Pacific troll fishery increased from the two exploratory vessels in 1986 to a peak of 58 vessels in the 1990-91 fishing season. Sharp declines in the number of vessels participating in the fishery and in landings occurred between 1990-91 and 1993-94. Only 21 vessels participated in the fishery during 1994-95; however, they had a successful season with high CPUEs and high catches. Their success enticed over 50 U.S. vessels to participate in the 1995-96 season.

Total seasonal landings for the U.S. South Pacific fishery peaked at 5,540 mt in 1990-91, then declined to 603 mt in 1993-94 (Figure 3). Landings improved in 1994-95 to 2,916 mt. However, despite an increase in the number of participating vessels, early reports on the 1995-96 season indicate poor fishing and landings not continuing the upward trend of the 1994-95 sea-

Table 8. U.S. commercial landings of Atlantic bluefin tuna for 1995.

Category	Number of Fish	Average Wt. (lbs.)	Gross Wt. (mt)	Quota (mt)
GENERAL	0	-	0.0	560
Handline	0	-	0.0	
Rod & Reel	0	-	0.0	
Harpoon	0	-	0.0	
HARPOON	0	-	0.0	57
INCIDENTAL	23	409	4.2	115
N. Longline	4	507	0.9	38
S. Longline	19	388	3.3	75
Other	0	-	0.0	2
PURSE SEINE	0	-	0.0	250
ANGLING	29	312	4.1	4
RESERVE	0	-	0.0	3
TOTAL	52	355	8.3	989

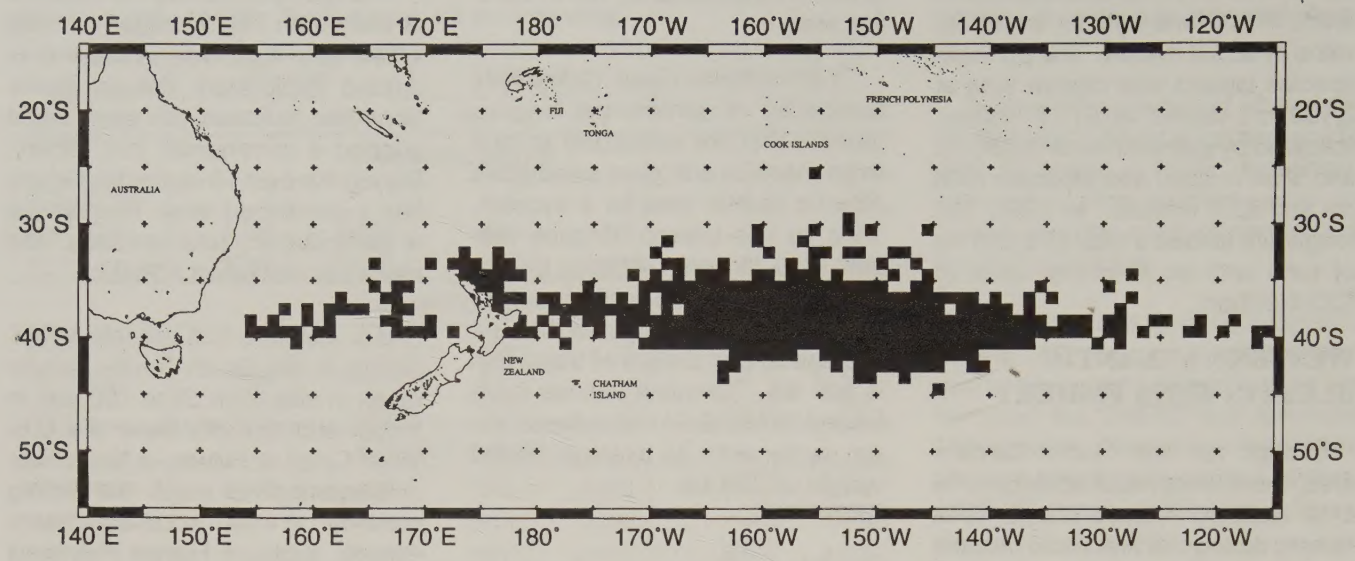

Figure 2. Fishing grounds of the albacore troll fishery in the South Pacific, based on catch by U.S. and non-U.S. vessels, 1986-95.

son. Industry sources anticipate total landings of 1,800 mt for the 1995-96 season.

The CPUE for the albacore troll fishery is expressed in numbers of fish caught per day of fishing. Daily catch and effort data are obtained through a voluntary logbook program conducted by the Southwest Fisheries Science Center. Seasonal CPUEs in the early years of the fishery ranged between 175 fish/day in 1986-87 and 168 fish/day in 1989-90. The CPUE declined to 106 fish/day in 1990-91, continued to decline through the 1991-92 season and reached a low of 43 fish/day in 1992-93. The seasonal CPUE then rebounded to 86 fish/day in 1993-94 and 146 fish/day in 1994-95. Vessels participating in the 1995-96 season reported average CPUEs as low as 50 fish/day in January and February; however, recent reports indicate CPUE values up to 470 fish/day for some vessels.

The decreases in total landings and CPUE between 1990-91 and 1994-95 coincided with an extended period of *El Niño*-type conditions in the Pacific. The Southern Oscillation Index (SOI) is a measure of the east-west atmospheric pressure gradient across the Pacific which drives the trade winds and influences ocean conditions. *El Niño* conditions are indicated by negative SOI values. Between 1990-91 and 1994-95, monthly SOI values averaged less than -1 during the South Pacific albacore fishing season (Figure 4). Albacore fishermen reported abnormally warm surface waters, absence of bait, absence of well-defined temperature gradients in

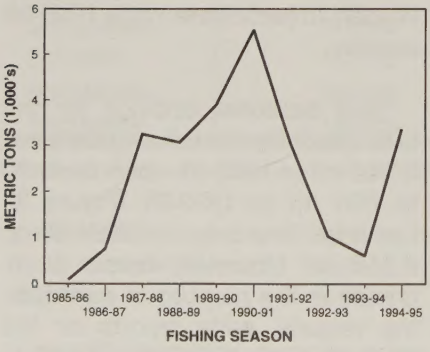

Figure 3. Seasonal landings of South Pacific albacore by U.S. troll vessels.

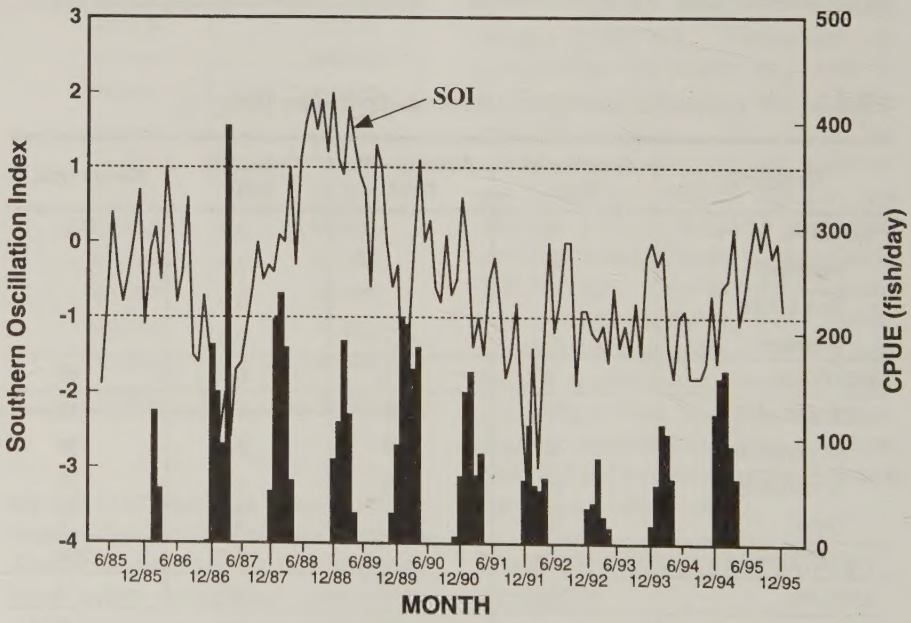

Figure 4. Monthly CPUE values for South Pacific albacore troll vessels and monthly SOI values.

surface waters, and poor fishing. Since December 1994, monthly SOI values have begun to approach zero, indicating a return to more normal conditions. This weakening of *El Niño*-type conditions and a return to more typical sea surface temperatures could be a positive sign that albacore availability in the South Pacific is improving.

An abstract from a recently published paper written by a SWFSC scientist is presented in this space to announce its availability and to report results of tuna research conducted by Center staff. The author of the following paper is on a leave of absence from the SWFSC, Honolulu laboratory.

RECENT SWFSC PUBLICATION: "SELECTIVE ADVANTAGES CONFERRED BY THE HIGH PERFORMANCE PHYSIOLOGY OF TUNAS, BILLFISHES, AND DOLPHIN FISH"

Richard W. Brill, Pelagic Fisheries Research Program, Joint Institute for Marine and Atmospheric Research, School of Earth and Ocean Science and Technology, University of Hawaii, Honolulu, HI 96822. *Published in Comparative Biochemistry and Physiology Volume 113A, No. 1, pp. 3-15, 1996*

Tunas are extensively distributed throughout world's oceans and grow and reproduce fast enough to support one of the world's largest commercial fisheries. Yet they are apex predators living in the energy depauperate pelagic environment. It is often presumed that tunas evolved their specialized anatomy, physiology, and biochemistry to be capable of (a) high maximum swimming speeds, (b) high sustained swimming speeds, and/or (c) very efficient swimming, all of which help account for their wide distribution and reproductive success. However, a growing body of data on the energetics and physiological abilities of tunas do not support these assumptions. The three things demonstratively "high performance" about tunas, and probably other pelagic species such as marlin (*Makaira* spp. and *Tetrapturus* spp.) and dolphin fish (*Coryphaena* spp.), are (a) rates of somatic and gonadal growth, (b) rates of digestion, (c) rates of recovery from exhaustive exercise (i.e., clearance of muscle lactate and the concomitant acid load). All of these are energy consuming processes requiring rates of oxygen and substrate delivery above those needed by the swimming muscles for sustained propulsion and for other routine metabolic activities. I hypothesize that the ability of high performance pelagic species (tunas, billfishes, and dolphin fish) to deliver oxygen and metabolic substrates to the tissues at high rates evolved to permit rapid somatic and gonadal growth, rapid digestion, and rapid recovery from exhaustive exercise (abilities central to success in the pelagic environment), not exceptionally high sustained swimming speeds.

RECENT DEVELOPMENTS IN TUNA FISHERIES

Editor's note: The following news items, compiled from fishery trade and industry journals, newspapers and NMFS reports, are provided only as a service to our readers. The NMFS does not guarantee their accuracy.

UNITED STATES

U.S. Tuna Cannery Being Sold--The Pan Pacific Fisheries cannery is being bought out of bankruptcy for $6.8 million by a San Pedro, California, based tuna trading company, Tri-Marine International, Inc. The deal is contingent on Tri-Marine negotiating a lease with the Port of Los Angeles, which owns part of the 25-acre complex on Cannery Street at Terminal Island's Fish Harbor. It also depends on negotiating a labor contract with the Seafarers International Union. Tri-Marine expects to reopen the cannery before summer and rehire 500 to 700 workers. Pan Pacific closed the half-century-old cannery last summer owing more than $7 million to its creditors. The closing put 600 people out of work. The company's failure was but the latest setback for a U.S. tuna canning industry that peaked in the 1940s, when it employed 10,000 people on Terminal Island at more than a dozen plants. In recent years, low-wage Far East packers have flooded the U.S. market with cheaper canned tuna. Today, Thailand has replaced the United States as the world's largest tuna-canning center. (Long Beach *Press Telegram*)

U.S. Vessels to Obtain High Seas Fishing Permits--The U.S. Commerce Department is leading an international effort to support global and regional fishery management organizations by implementing the High Seas Fishing Compliance Act of 1995. The act was signed by President Clinton last November. By implementing this act, the United States is one of the first fishing nations to carry out the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, adopted by the United Nations' Food and Agriculture Organization in 1993. U.S. vessels fishing on the high seas are now required to obtain a permit and to comply with all international conservation and management measures recognized by the United States.

Negotiated largely at the initiative of the United States, the agreement was adopted in response to fisheries crises that have arisen in many areas of the world. As the size and efficiency of modern fleets have come to exceed the productivity of traditional coastal harvesting areas,

fishery managers of coastal nations generally have reacted by imposing stricter management regimes. As a result, increasing numbers of vessels have sought fishing opportunities on the high seas, where regional organizations have tried to impose management measures.

The agreement evolved from the concern that vessels of member nations were registering with and operating under the flags of non-member nations to continue fishing unconstrained by rules set by regional organizations. The agreement obligates those nations signing it to require vessels operating under their flags to obtain specific authorization to fish on the high seas, and makes those nations responsible for their vessels' actions.

Applications for high seas fishing permits are now being accepted by the Commerce Department's National Marine Fisheries Service regional offices. (The "high seas" refers to areas outside the exclusive economic zone of any country, generally 200 miles from shore.) A fact sheet outlining the permitting process is available by fax by contacting the fisheries service public affairs office at (301) 713-2370. (NMFS release, March 19, 1996)

Tuna on Display--On March 2, 1996, the Monterey Bay Aquarium, California, opened a new exhibit of open ocean life seldom seen in captivity. Bonito, yellowfin tuna, barracuda, and ocean sunfish are displayed in a 1-million gallon tank environment. (Associated Press)

WESTERN PACIFIC

Bluefin Aquaculture Center in Operation--The Japanese National Bluefin Tuna Aquaculture Center was formally declared open in November last year. Situated on Amami Oshima Island of Kagoshima Prefecture, Kyushu, the Center is managed by the Fisheries Agency of Japan. The Center aims to eventually produce a large supply of bluefin tuna for release into the North Pacific. (INFOFISH *Trade News*, March 1, 1996)

Philippine Exports--The Philippines is the world's second largest exporter of canned tuna, after Thailand. Lower catches in 1995 and reduced imports of tuna raw material threatened this position to a certain extent. Exports of canned tuna in January to September 1995 fell by 6% to 4.35 million cartons (48x6½-oz) compared to 4.62 million cartons in the same period in 1994. The United States regained its position as the leading buyer, with a purchase of 1.22 million cartons, a 37% increase from 887,600 cartons in 1994. Exports to Europe declined. Sales to Germany fell by 18% to 746,900 cartons in January-September 1995, as compared to 910,900 cartons in 1994. During the same period, shipments to the United Kingdom dropped by 8% to 621,200 cartons (673,100 cartons in 1994) and those to the Netherlands were 194,700 cartons compared to 285,000 cartons in 1994. Exports to Japan also declined by 18% to 336,200 cartons. Canadian purchases rose by 57% from 400,900 cartons in January-September 1994 to 629,700 cartons in 1995. (INFOFISH *Trade News*, February 15, 1996)

EASTERN ATLANTIC

Spanish Tuna Boat Investment--A total investment of $12.4 million will be made in 1996 to renew 10% of Spain's tuna boat fleet owned by the National Association of Tuna Freezer Ship Owners. (*World Fishing*, February 1996)

Lost Quota Ends Tuna Venture--Goodman Shipping, a tuna fishing venture partly owned by Sölumidstöd Hradfrystihusanna (SH) in Iceland, has ceased operating, and its two tuna purse seiners have been sold. The seiner *Jacques Cartier*

UPCOMING TUNA MEETINGS

(Organizer; meeting type: sci=science, adm=administration)

- MAY 7-10. First meeting of the Interim Scientific Committee for Tunas and Tuna-like Species in the North Pacific Ocean. Tokyo, Japan (Fisheries Agency of Japan; sci & adm)
- MAY 20-23. 47th International Tuna Conference. Lake Arrowhead, CA. (NMFS; sci)
- JUN 10-18. International Commission for the Conservation of Atlantic Tunas Symposium. Horta, Azores. (ICCAT; sci)
- JUL 11-18. ICCAT Billfish Workshop. Miami, FL. (ICCAT; sci)
- JUL 15-19. Technical consultation on the collection and exchange of fisheries data, tuna research and stock assessment. Noumea, New Caledonia. (South Pacific Commission; adm)
- JUL 28-AUG 2. 2nd World Fisheries Congress. Brisbane, Australia.
- AUG 5-9. SPC 26th RTMF. Noumea, New Caledonia. (SPC; adm)
- OCT 23-26. ICCAT Species Group meetings. Madrid, Spain. (ICCAT; sci)
- OCT 28-NOV 1. ICCAT Standing Committee on Research and Statistics meeting. Madrid, Spain. (ICCAT; sci)
- NOV 22-29. ICCAT Annual Commission meeting. San Sebastian, Spain. (ICCAT; adm)

was sold earlier this year and the second ship, *Via Simone*, has now been bought by an operator in Venezuela. Operations were run from Abidjan, Ivory Coast, and the venture is reported to have been successful. However, SH made the decision to bring the venture to an end after the Indian Government ruled against issuing an expected 50,000-ton tuna quota inside India's exclusive economic zone. (*Fishing News International*, January 1996)

Spanish Canner Eyes Italy--Having bought out the debt-ridden Italian company Nostromo in 1993, the Luis Calvo Group from Spain is reported to be planning to become the second largest supplier of canned tuna to Italy. It is currently the number five supplier to that market. Sales from the Italian plant are estimated to reach $48 million this year. The group also has plants in northwest Spain and Venezuela. Meanwhile the fish canning industry in the northern Spanish region of Galicia is reported to be facing a lack of modern equipment and expertise. The region produces 130,000 mt annually with sales of $480 million accounting for 66% of the national production. (INFOFISH *Trade News*, February 2, 1996)

Bluefin Tuna Poaching--On January 20, 1996, the Japan Fisheries Agency announced that it is preparing to punish the owner of the 400-ton *Yawata Maru No. 78*, seized and confiscated off the Libyan coast in June 1995 for harvesting bluefin tuna in violation of an international convention. All Yawata Suisan Co. vessels will be confined to port and prohibited from fishing for an indefinite period. More than double the number of licensed vessels were reported to illegally fish for bluefin tuna in the area of the seizure. (*Dow Jones News*)

INDIAN OCEAN

Indian Ocean Tuna Treaty--With the accession of the Republic of Korea on March 27, 1996, the Indian Ocean Tuna Commission Agreement came into effect. This new international body will be responsible for the management of tuna and tuna-like species in the Indian Ocean. The ten founding members are Eritrea, the European Union, India, Korea, Madagascar, Mauritius, Pakistan, Seychelles, Sri Lanka, and the United Kingdom. The operations of the IOTC, which will take over and expand upon the responsibilities of the Indo-Pacific Tuna Development and Management Program (IPTP), will start as soon as the members finalize arrangements regarding the host country, budget levels and a formula for the allocation of individual contributions. These issues are expected to be discussed during the first session of IOTC, tentatively slated to be convened in Rome early next fall.(IPTPRelease)

AFRICA

South Africa Decline in Tuna Catch--Catches in South Africa totaled 5,615 mt in 1994, a drop of 22% compared to 1993. Of the total, 1,540 mt were caught in Namibian waters. Albacore is the principal species, constituting 94% of total landings. Landings of yellowfin tuna dropped from 256 MT to 50 MT. (INFOFISH Trade News, March 1, 1996)

European-African Fishing Agreements -- This is an important year for French fishing vessel operators. The European Commission will, this year, discuss the renewal of fishing agreements with seven African countries. Negotiations with the Seychelles began in January, while discussions with Angola and Sao Tome are to be held in May. Negotiations with the Gambia and Mauritania will come up in June and July while those for Senegal and Mauritius are scheduled to be held in October and November, respectively. Such agreements are important for the French and Spanish tuna boats which fish regularly in the EEZs of these countries. (INFOFISH *Trade News*, March 18, 1996)

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